

Abstract

To present a scintillation crystal containing a fluorescent component with excellent luminous efficiency and short decay time while the wavelength of the emitted light being in the visible light region or very near the visible light region and a radiation detection device using the scintillation crystal having an excellent timing resolution capability.

Barium chloride (BaCl_2) is used as the scintillation crystal. A radiation detection device comprising a barium chloride (BaCl_2) crystal as a scintillator and a photomultiplier tube to receive the light from the scintillator wherein the wavelength of the light emitted from the scintillator is between 250 nm and 350 nm and the scintillator is located in a low humidity atmosphere.